ISO Standards and Audit:
A Case Study about ISO 31000

Alcina de Sena Portugal Dias
Instituto Superior de Contabilidade e Administração do Porto (IPP), Portugal

Madalena Maria Ribeiro Magalhães
Instituto Superior de Contabilidade e Administração do Porto (IPP), Portugal

ABSTRACT

Standards are applicable to any kind of activity and could be defined, in a broad way, as an activity aiming to apply an ordered system to repetitive functions that take place in the context of industry, technology, science and economy. Auditing is deeply connected to the implementation of any standard and this chapter aims to do this connection. Standardization can stimulate international comparability eliminating obstacles arising from some different national practices – in accounting and in auditing – using IFRS (International Financial Reporting Standards) and ISA (International Standards on Audit) – in risk analysis – and using ERM (Enterprise Risk Management) or ISO 31000 – in people's safety, in the product or in the environment. A case study about ISO 31000 in a municipality where IFRS and ISA are followed and where ISO 9001, 14001, 18000 are a reality will frame this issue. ISO 26000 about corporate social responsibility will be the new future challenge.

Keywords: Global Market, Standards on Accounting – IFRS, Standards on Auditing – ISA, Standards on Risk – ERM or ISO 31000, Standards on Product/Service – ISO 9001, Standards on Environment – ISO 14001, Standards on Work Safety – ISO 18000, Standards on CSR – ISO 26000, Case Study about a Municipality

INTRODUCTION

This chapter aims to make the connection between the audit function and the applicable standards. Audit consists of an activity of analysis, inspection and verification carried out about any subject, with the purpose of issuing an opinion about its veracity, transparency and accuracy according to a reference or a benchmark of performance. These benchmark tools, often called standards, may be related either to accounting, auditing, risk, safety or to the quality of the product, the environment and the social responsibility of the organization. After considering each of them – IFRS, ISA, ERM and ISO standards 9001,14001,18000, 31000, 26000 – a brief description of the respective audit process associated will be considered. Finally, so as to frame this issue, a case study about ISO 31000 in a municipality of the District of Porto – that has already implemented most of these standards –will be displayed.

BACKGROUND

Over the last few years, an acceleration of the process of standardization concerning business management has taken place in an economic context characterized by a marked process of globalization and economic integration of markets. Under this scope of analysis, many studies have been undertaken considering the role of standards that are, in many cases, non-tariff barriers to international trade relationships.
As various authors have emphasized, while tariff barriers are becoming lower and lower, non-tariff barriers (i.e., technical standards and regulations affecting the requirements for products, services and,

indirectly, production processes) are acquiring increasing importance (Blanco & Bustos, 2004). In short, the importance of international trade in the global economy has grown dramatically over the last two decades, but while tariffs and quantitative restrictions on trade have been lowered or eliminated, barriers of a different nature have had an increasingly restrictive effect on trade, especially in the case of a broad range of technical standards (Dias, 2014; Giovannucci & Ponte, 2005; Henson & Loader, 2001).
Standardization has been crucial for the development of the industrial society (Blind, 2004). At its origins, in the early 20th century, standardization was introduced in order to curb an uneconomical divergence of components, parts and supplies and to foster their interchangeability so as to facilitate mass production and the repair and maintenance of products and services.
However, standardization has gone further than this and comes to be applied to the very management processes and systems by which products and services are produced (Antonelli, 1999; Brunson & Jacobsson, 2000; Dias, 2014; Heras, 2006). Standards-based management is a research field that has received considerable attention in recent years, due to the great success experienced by management standards all over the world. Therefore, it is important to review the different approaches of the study of standardization in a management context, in order to try to synthesize and, thus, improve the academic knowledge about these interesting management tools, within the interest of the various different stakeholders involved (e.g., managers, consultants, policy makers and researchers). It is well known from the perspective of the executives of organizations that all these standards need an accurate plan of audit in order to test their fulfillment. So, according to the range and scope of application of each standard a specific audit plan must be designed. This way, audit must be considered as a proactive and adaptive issue of analysis and assurance that should make part of the management of any organization.

Standards – Audit and Risk Management

The auditing function concerning financial statements is developed according to ISA (International Standards on Audit). This audit process has the aim of analyzing the organization accounting transactions that must fulfil IFRS (International Financial Reporting Standards) (issued by IASB – International Accounting Standards Board – United Kingdom). These standards have the purpose of creating the global harmonization and comparability of the financial statements once they are applied worldwide. These standards start with ISA 200 – Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing, and end with ISA 810 – Engagements to Report on Summary Financial Statements covering the most relevant aspects of the audit process. Nowadays they are a compulsory tool to be used by auditors along the development of the work on the organizations' financial statements.
Many articles have been written about the early application of IFRS. Some organizations were not very interested in implementing these standards. It is interesting to note that there are very different opinions. Hans, Edward, Martin, and Cheng (2015), in Germany, decided to measure the impact that the early implementation of these standards would have on the quality of management reports. They took as reference previous studies that measured the accounting quality through the management of the results, the timely recognition of losses and the relevance of value. While the literature showed that IFRS add to the improvement of accounting quality, these authors considered that these improvements were confined to companies that had incentives for their adoption. In this way, this study showed that companies that resist the adoption of IFRS have closer links with banks and internal shareholders, which are consistent with lower incentives for the use of more comprehensive accounting standards. The authors concluded from the evidence gathered that they could not infer about changes in the quality of accounting around the voluntary adoption of the early implementation of IFRS. With similar conclusions, another study (Lourenço & Castelo Branco, 2015), which analyzed of a set of 67 articles published in accounting journals that integrate the Social Sciences Citation Index (SSCI), published between 2000 and 2013, refers a positive effect on the quality of information, capital markets, analysts' predictability, comparability and use of information as consequences of the implementation of IFRS. However, this effect is also related to other factors, such as the characteristics of both countries and companies. In short,

they result from factors such as the country's socio-cultural framework. The authors conclude that rule-sharing is not by itself sufficient to create a common business language; only with management incentives and institutional factors playing an important role in framing the characteristics of financial reporting can it be really achieved.
Consistent with and under the scope of these ideas, Mukhlisin and Antonio (2018) considered the accounting standards' development in the United Kingdom and Indonesia according to a different path and history. The results of their study confirm the importance of the legal foundation, as well as political and social differences of both countries, as factors and reasons that explain a unique development and results.
However, regardless of getting an advantage with their implementation, IFRS and IAS (International Accounting Standards) are a global reality. What is important is the comparability and harmonization of financial information – the great motive inherent in these standards. So, for this to happen it must be ensured that everything registered according to them in any type of organization is correct and in accordance with the appropriate and applicable references. This analysis and inspection of what is done in the accounting is carried out by the audit, whose process activity development is also ruled by standards.

ISA – International Standards on Audit

Independent Audit aims to increase the degree of confidence of the users who receive the financial statements (as per ISA 200 stating the general objectives of the independent auditor and the conduct of an Audit in Accordance with the International Standards on Auditing). This is achieved through an opinion expressed by the auditor on whether the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. The Independent Audit is characterized as an important type of assurance service. One of the many responsibilities of the PCAOB (Public Company Accounting Oversight Board) is the inspection of the audit firms themselves. To execute audit firm inspections, PCAOB inspectors select work paper files of audit firms that audit companies listed on US-based exchanges for review, using a risk-based approach (Cheng & Flasher, 2018). This is to guarantee that the work of auditors is good and faithful.
Besides this and according to the definition of assurance services of AICPA (American Institute of Certified Public Accountants), assurance services are independent professional services that improve the quality of information for the users' decision-making.
However and according to Boynton, Johnson, and Kell (2003), assurance services and audit services have different meanings because audit highlights information that affects accounting statements, and assurance services cover a wide range of information used for decision making and are not restricted to the financial statements.
It is well known that assurance services can cover financial and non-financial information, isolated in a process or system, direct or indirect, external or internal. The financial statements of an organization include a lot of transaction records and their adequacy and display must be confirmed. In order to reach this aim, an audit process will be achieved according to ISA (issued by IAASB – International Auditing and Assurance Standards Board /IFAC – International Federation of Accountants – United States of America). Up to now, and so far, it is possible to see, from a financial statement's perspective, that the global market is embedded in standards. As a curiosity and just considering the above mentioned issues, it may be stated that the mix of these standards – being at the same time from Europe and from the USA – with a different global positioning of their issuing bodies (and having the power to implement them worldwide) contribute to the so-called global financial harmonization.
Boolaky and Soobaroyen's (2017) study about the ISA implementation and the advantages that may follow uses the neo-institutional perspective, and seeks, for the first time, to investigate empirically the determinants of the adoption of ISA and the commitment to harmonization on a cross-national basis (89 countries). The results show that the protection of minority interests, law enforcement, creditor and borrower rights, foreign aid, the prevalence of foreign ownership, educational level, and particular forms of political system (level of democracy), prevailing in a country, are observed as significant predictors.

The degree of commitment to the adoption and harmonization of ISA's statistical analysis shows that coercive, mimetic and normative pressure have a significant impact on their adoption in relation to economic factors (led by efficiency). The findings of the study reveal that the current efforts of IFAC and other international agencies are directed to the use of ISA and should encompass a broad range of institutional, rather than economic factors. These are, in fact, relevant reasons in the development of audit policies around the world. It is well considered by all the stakeholders that, for an effective achievement of audit functions, the support of management and the implementation of the auditor's opinion play the most important role (Mihret & Yismaw, 2007). It seems that the power established in the organization is something quite relevant that must be fitted to each organization depending on the activity, placement and socio-cultural environment. Yet, it is the combination and consideration of all these variables that can explain the assurance that is expected from the audit on the financial statements. If one of them fails, it becomes a risk factor.

ERM – Enterprise Risk Management

When considering an organization, a perspective of risk management must be encompassed. It is important to identify some of the tools available for the organizations, namely ERM (Enterprise Risk Management), whose last review is from 2017. This risk perspective is most important presently because the global market is proactive and dynamic and has embedded some new important features, such as the "process" idea and the cultural dimension. ERM considers the life of organizations just like a process where one gets as inputs the core values of the company, translated in its Mission and Vision; then a set of risk procedures should be implemented inside the organization in order to comply with the mission and vision, so that an enhanced performance may be the final outcome of ERM (issued by COSO – Committee of Sponsoring Organizations from the Treadway Commission, USA). So, Enterprise Risk Management (COSO, 2017) is a tool – a benchmark, a standard – that, if correctly implemented in the organization, will contribute to a better performance.
As mentioned before and according to Figure 1, the inputs of this process are a clear definition of the organization's Mission and Vision. The former has to do with the development of the organization's activity and the latter has to do with its future placement in the market. The core values are related to the history tradition, beliefs and stories connected to the organization, that is, its cultural aspects, which is a real innovation of ERM 2017 when compared to the previous Cube COSO.

Figure 1. ERM 2017
Source: 2017-COSO-ERM-Integrating-with-Strategy-and-Performance-Executive-Summary.pdf

The operational process consists of identifying the following aspects related to the organization's business strategy and objectives:

- Risk Governance and Culture, that is, how the organization identifies the risk and the relevance of the organization's culture in terms of risk;
- Risk Strategy and Objective Setting has to do with the guidelines defined to identify risk situations;
- Risk in Execution has to do with the implementation of the risk;
- Risk Information, Communication and Reporting means how and to whom the risk environment is communicated;
- Monitoring Enterprise Risk Management Performance, that is, the ways found in order to test the risk in the organizations.

This new COSO (2017) assumes that if these procedures are undertaken in order to match the organization's Mission and Vision, the attainment of the organization's goals will be reached and an enhanced performance will be displayed.
An interesting study, quite similar to the one developed along this chapter, was carried out in a municipality in Finland (Vinnari & Skærbæk, 2014), having as purpose the analysis of the implementation of risk management as a tool for internal audit activities. The authors found that risk management, rather than reducing uncertainty, created unexpected uncertainties that would otherwise not have emerged. These include uncertainties relating to legal aspects of risk management solutions, in particular the issue concerning which types of documents are considered legally valid; uncertainties relating to the definition and operationalization of risk management; and uncertainties relating to the resources available for expanding risk management. More generally, such uncertainties relate to the professional identities and responsibilities of operational managers as defined by the framing devices.
The connection between audit and ERM is strong. In order to identify the areas and the issues that may reveal a risk in a company, it is necessary to investigate, to check and to conclude about the risky events that may occur along a dynamic operational process of any kind of organization. And this process is made up of enquiries, testing and defining goals to be attained expressed in KPI (Key Performance Indicators).

ISO Standards (ISO 31000; ISO 9001; ISO14001; ISO18001; ISO 26000)

ISO 31000

Furthermore, besides ERM, and still regarding risk management, ISO 31000 (Figure 2) can also be implemented. This standard's last revision occurred in March 2018.

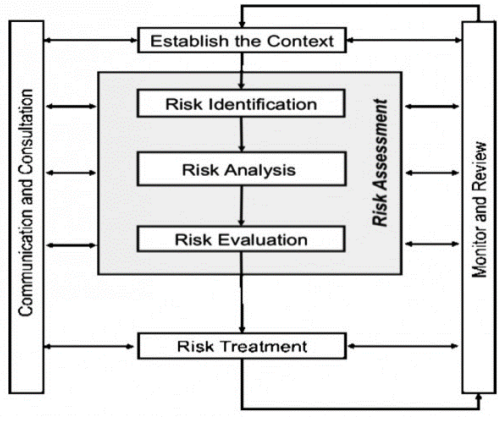

Figure 2. Risk management and the ISO 31000 standard
Source: ISO 31000 – risk management – flowchart

It should be noted that companies that used to work with ISO 9001 prefer ISO 31000 because the language is objective and direct, in the same way and approach as ISO 9001, seeming the most obvious risk treatment.
In terms of input, communication and consultation is considered about risk position in the organization, defining a framework and then assessing the risk in three distinct phases: identification, analysis, and evaluation. Finally, there is the risk treatment. An output called monitoring and review ends the process. Yet, this is an iterative process leading to continuous improvement, which means that after monitoring and reviewing, there is a return to the first phase by communication and consultation because the non-conformities must be disclosed and treated.
An application of ISO 31000 was considered by Oliveira, Marins, Rocha, and Salomon (2017) regarding the supply chain. The authors posit that breaks and interruptions in supply chains can cause huge financial losses and damage the companies' reputation. Thus, Supply Chain Risk Management (SCRM) is considered to involve a multi-step process analysis. However, researchers differ on the number and content of these steps. The objective of this study was to analyze the applicability of ISO 31000 as a systematic procedure for SCRM. And, if so, how the standard can be implemented in the context of SCRM, with a structure and in a specific company. Through the literature review, the risk management steps proposed by SCRM surveys were compared and harmonized. In addition, a way has been developed to identify and prioritize the risk assessment tools and techniques in ISO 31000: 2009 that should integrate a procedure for SCRM, based on the Analytic Hierarchy Process (AHP), exemplified in a car industry supply chain. Based on the results of the research (Dias, 2017), the authors concluded that ISO 31000 can be used in a beneficial way as a standardized method to execute SCRM, provided that the tools and techniques are selected according to the needs of the company and the characteristics of the business.
As to the relation of audit to ISO 31000, it may be stated that its implementation is based on audit once the risk identification, analysis, and assessment is based on a previous analysis of the factors and events that may prove as being of some risk for the company. And after its implementation, the monitoring is a kind of audit that must be achieved within the working process of the organization.

ISO 9001

ISO 9001, in its 2015 version, is the standard that organizations must apply to have their product or service certified and, in this way, through their sales, have associated a guarantee, to and from the transaction, in the global market. In schematic terms its composition is as depicted in Figure 3.

Figure 3. ISO 9001
Source: ISO 9001 diagram

The main items to be considered for the implementation of ISO 9001 are the following (Table 1):

Table 1. Crucial items from ISO 9001

1 Organization Context: interested parts in the Quality Management System
2 Leadership: distribution of power within the organization
3 Planning: the way the organization sees and plans its future business
4 Support: operational structure towards organization "core business"
5 Operations: process related to the product or service
6 Performance Evaluation: prevailing schedule in the organization
7 Continuous Improvement: KPI definition for the Quality Management System and follow up associated

Studies about the "quality" factor show that the quality process can add to a change in the structure of organizations (Deming, 1989; Dias, 2014; Heras, Dick, & Casadesús, 2002; Hyvönen, 2007). The way hierarchy is established or positioned can be altered to better serve the purposes of quality and, ultimately, the management goals embodied in the organization's mission. It is common knowledge that any organization, to work efficiently and effectively, needs to have leadership (Dias, 2009; Mintzberg, 1987; Zahirul, 2003), but this too is now changing. It is the good leadership that will make the organization's mission-oriented objectives guided by strategies (Dias & Lima, 2010; Drucker, 1986; Kaplan & Norton, 1992; Oakland & Tanner, 2007; Ortiz, Benito, & Galende, 2006) that can and should be understood through cultural factors (Schein, 1999).

The global market increasingly needs to have this understanding, and attention must be paid to an academic example of implementation of ISO in universities studied in Malaysia. Basir, Davies, Douglas, and Douglas (2017), based on the literature review and considering only the academic culture, classified according to four elements – academic freedom, individualism, professionalism and collegiality –, carried out two case studies in Malaysian universities, which were ISO 9001 certified for five years. At the time of this research, these two were the only universities that had certification for the entire organization (most organizations obtain certification only for specific departments). The results showed that academic freedom, individualism and collegiality worked against the maintenance of ISO 9001, while professionalism influenced the maintenance of ISO 9001 both positively and negatively. The opposites of individualism (teamwork) and collegiality supported the maintenance of ISO 9001 in one case.

This ISO 9001 is the basics of any management system ruled by standards and audit makes part of its implementation. A Quality Management System is the result of its implementation (Dias, 2010) and can be responsible for the company's sustainability. For this the company must achieve a previous audit so as to evaluate the degree of compliance of the areas/sectors to be included within the scope of certification. Then some actions and performance indicators will be settled to sustain it.

Subsequently, an audit plan will be designed to be in force since the moment ISO 9001 is granted to the company and it will be working out along the life of the standard (evidencing and presenting non conformities and trying to solve them). This audit function performance is described in the very ISO 9001 contents and is a compulsory figure to be followed.

ISO 14001

Any entity that wishes to use ISO 14001 regarding the environment should already have an ISO 9001 (Dias, 2013) because it is almost compulsory and its implementation procedures are quite similar and complementary, but the environmental focus is the ultimate goal. Typically, the most polluting sectors (such as pulp, chemicals, petroleum and civil construction, among others) will be most interested in meeting this standard in order to show compliance with the environment and all the other stakeholders. In terms of the diagram, it is possible to identify ISO 14001 as shown in Figure 4.

Figure 4. Diagram of ISO 14001
Source: ISO 14001 flowchart

As can be noted in this standard, as in all the others, the responsibility of management and the environment policy defined by the organization to meet the environmental directives (usually European directives for Europe) are the main issues. Planning is associated to the company's environment approach. The monitoring phase and actions include corrective measures whenever results come out of the plan. From the implementation of this standard a lot has been developed academically. A recent study by Murmura, Liberatore, Bravi, and Casolani (2018) states that, over the last decades, the adoption of Environmental Management Systems, as structures for the integration of corporate environmental protection policies and programs, has become a growing practice among national and multinational companies around the world. The study carried out by the authors is an empirical survey conducted among Italian companies certified with the ISO 14001 Environmental Management System (EMS) and the European System of Eco-Management and Audit (EMAS). The objective was to identify the types of companies that have implemented an EMS standard, to examine the motivations that led them to introduce it, to identify perceived benefits and barriers and to assess the differences and similarities between these two systems. The research was carried out through a questionnaire sent to 1,657 certified organizations, of which 190 participated. The analysis of variance; the chi-test ($\chi 2$ test) and the Pearson's correlation were used to frame the items of motivations, benefits and barriers. The survey results show that EMAS certification appears to be strictly related to ISO 14001; in fact, most companies operating in the international markets have both standards. In addition, especially the larger companies have embarked on certification when compared to the smaller ones, because they are almost "pushed" to certification for different reasons. Time was also considered a relevant discriminant factor. Regarding the analysis of perceived benefits and barriers, there was an important correlation similarity between ISO 14001 and EMAS. The research made an added contribution to the importance of good environmental management. The connection of this standard to audit follows the assumptions described for ISO 9001, that is to say, the audit is a function needed in order to guarantee the granting and maintenance of this certification.

ISO 18001

People who work in an organization should be secured from any harm that can happen in the working environment. For this objective OHSAS (18001:2007) must be referred and they deal with a management system that helps an organization to control the work risks and improve performance. The main issues of its implementation are depicted in Figure 5.

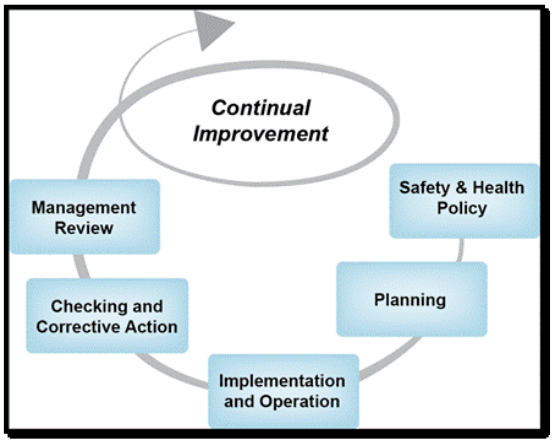

Figure 5. ISO 18001
Source: Diagram of ISO 18001

The requisites to implement the Norm consist of the definition of the legal framework of the organization and its workers and then a full description of the objectives and the monitoring program associated, as well as the resources available to achieve them. The functions associated with human resources, responsibilities/authorities related to the competence and the training and the awareness of the class are also central. Communication is fundamental because it reflects the engagement and shared participation. Operational control and measures implemented to deal with emergencies are factors that help to justify performance improvement. The final goal is the continuous improvement and this way the organizations that follow these recommendations of safety and health policy will record a minimized risk. However, it is very important that the human resources of the organization know that they contribute to success and that they are recognized for it.
Usually the Human Resources Department of any company develops some audit procedures in order to test the security and availability of the resources devoted to implementing this standard.

ISO 26000

Literature is right when it mentions that the standardization process is connected to globalization and economic integration of markets. ISO 26000 may be referred to as having a very high level of compliance. This standard is intended to help organizations contribute to a sustainable development and to encourage it by going beyond legal compliance, as this is a fundamental duty of any organization and an essential part of its social responsibility. In presenting ISO 26000, it is advisable for an organization to focus on social, environmental, legal, cultural, political and organizational diversity, as well as on differences in economic conditions, consistent with international standards of behavior. This standard does not contain any requirements, nor does it grant any kind of certification, but it aims to provide organizations with guidance on social responsibility and can be used as part of public policy activities. However, for the purpose of the WTO (World Trade Organization)-Marrakesh Agreement, it is not intended to be interpreted as an “international standard”, “guideline” or “recommendation”, nor is it intended to provide a basis for any presumption or decision of a measure compatible with WTO obligations. The performance of an organization that holds social responsibility can influence, among other things:

- competitive advantage and reputation (organization, management, governance, operational practices);
- the ability to attract and retain workers or members, clients and third parties (human rights, labor practices);
- maintenance of employee morale, commitment and productivity (human rights, labor practices);

- the perception of investors, owners, donors, sponsors and the financial community (customer/stakeholder issues);
- the relationship with companies, government, media, suppliers, peers, clients and the community in general (involvement or development in the community).

In brief, there are seven central issues of social responsibility defined in Figure 6:

Figure 6. Social Responsibility

Gupta, Briscoe, and Hambrick (2017) researched the position of United States' companies in relation to CSR (Corporate Social Responsibility) and questioned why companies presented different positions towards this issue. Previous research had emphasized the role of external pressures as well as CEO's (Chief Executive Officer) preferences, while little attention had been paid to the possibility that CSR may also derive from the prevailing beliefs of company's political body. The authors introduced the concept of organizational political ideology to explain how the political beliefs of organizational members can shape corporate advancement in CSR. They used a new measure based on the political contributions of corporate employees, evidenced in the Fortune 500, and found that ideology foresees advances in CSR. This effect seems to be stronger when CSR is rare in: (i) the business sector where firms are located; (ii) when firms have high human capital intensity; and (iii) when the CEO has been in the organization for a long time. Another relevant issue addressed by the authors was the reason why companies vary their positions regarding CSR. Previous research suggests that companies get involved in CSR when they are under pressure to do so, or when their CEOs have liberal values. The concept of organizational political ideology was then used and it was concluded that CSR can also result from the values of the largest number of employees. Introducing a new measure of organizational political ideology based on employee donations to the two main political parties in the United States, it has been found that liberal companies are more concerned with CSR than conservative ones, and even more so when other companies belonging to the same branch of industry have weaker CSR records, when the company relies heavily on human resources (thus having many workers) and when the CEO of the company has a long organizational mandate.

From these final ideas of Gupta, Briscoe, and Hambrick (2017), it can be stated that they are in line with the conclusions from a PWC's (PricewaterhouseCoopers) study, dating back to 2012, carried out in Portugal. This study covered different sectors of activity with CSR implemented, such as energy, transport, logistics and real estate construction, which accounted for about 65% of all CSR companies. In a detailed characterization analysis, it may be concluded that companies with a strong and shared leadership, having a large number of workers, and presenting a considerable turnover need to defend their reputation/brand and are looking for something that sets them apart from the others – the peers – and that is CSR. When a company reaches this status it means that the financial statements are transparent and true and the stakeholders may be sure that this company is trustful in the sense of presenting clear and sound financial statements – something that is expressed in the auditor's opinion.

After considering the importance of standards and the related function of audit, this chapter will now consider risk management in a Portuguese municipality.

CASE STUDY OF A MUNICIPALITY

This study is under the scope of many other carried out about municipalities and local entities that have somehow inspired it.
As to municipalities, it is important to refer that a great part of Portuguese municipalities are already implementing most of the standards described above. Standards on accounting, such as IFRS, and on audit, such as ISA, are compulsory. ISO 9001, ISO 14001, OHSAS – ISO 18001 standards have already implemented by the largest municipalities of the District of Porto.
The District of Porto includes 18 municipalities[1]. Considering the size of the population to be served/provided, the following municipalities stand out: Maia, Matosinhos, Porto and Vila Nova de Gaia[2].
The municipality of Maia is an entity with autonomous administration of the Portuguese State and is geographically located in the District of Porto (Portugal). The municipality of Maia has implemented ISO 9001, ISO14001and ISO 18001. Furthermore, it is important to mention that this municipality decided to implement in advance some procedures and measures to face the risk, being this fact one of the good reasons that justifies this case study. It should be stressed that ISO 26000 responsible for the CSR, a standard that is referred to in this study, will be the challenge, in the short time, for these entities, in the sense of making the difference.
As initially mentioned, some studies have revealed interest on municipalities (Félix, 2013) either about the environmental accounting and related reporting procedures or about the importance of internal control as to the usefulness of the information displayed.
Ribeiro, Aibar-Guzmán, Aibar-Guzman, and Monteiro (2016) considered the development of Environmental Accounting and Reporting Practices (EARP) and an index was developed by a set of eight of these entities from the 69 Portuguese local entities included in the considered sample. Three variables were considered in this study as possible factors that drive the development of Environmental Management Practices (EMP) by local entities. They were: size of entity, accounting framework, and degree of development of EMP. Results indicate that the degree of development of EARPs in Portuguese local entities is low. Additionally, accounting regulation and the degree of development of EMPs are explaining factors of the degree of development of EARPs in Portuguese local entities. The information about the environment seems to be relevant but internal control and the usefulness of the financial information obtained for internal decision making is also quite a relevant issue (Nogueira & Jorge, 2017).
The authors made a quantitative research, based on a cross-sectional analysis developed in the local government context. Data were collected from a survey addressed to decision makers (politicians and chief officials) in charge of the financial area in all Portuguese municipalities. The response rate was approximately 49%, assuring representativeness. As to the perceived usefulness of financial and budgetary reporting for internal decision making, the results show that the attitudes of municipalities' internal users towards using accrual-based financial reporting for decision making is changing. Additionally, internal decision makers consider financial and budgetary information as being very useful for decision making, and the different types of internal control applicable to that information are referred to as very important. The results also clearly point towards the existence of a significant and positive relationship between internal control (including internal auditing) about financial and budgetary information and its perceived usefulness for municipal decision making (Nogueira & Jorge, 2017). This introduction allows identifying the interest that municipalities have on financial reporting and the transparency and usefulness of its contents.

Objectives

According to literature suggestions and taking into account the needed policy and business requirements for the public sector in Portugal, a case study, based on ISO 31000, was carried out in a Town Hall belonging to Maia, District of Porto, in Portugal. It is well known that municipalities have a quite

different organizational environment and positioning as to the hierarchical distribution of functions and related management process (Azevedo, 2014). It was both a challenge and a deep interest of research to develop this case study from a risk management perspective.

As to the Portuguese Public Sector, risk management practices are quite recent. Emerging from paragraph 1 of the United Nations Convention against Corruption, the Prevention Council was created in Portugal in 2008 (the United Nations Convention includes Portugal since December, 11 2003, as from the date of signature, and since September 28, 2007, as from the date of ratification).

The objective was to have a formal institution coordinating the anti-corruption model. Until that date only agencies acting on a repressive scope of analysis were provided (Central Directorate for Investigation of Corruption and Economic and Financial Crime – Judicial Police and the Central Investigation Department and Criminal Action – Attorney General's Office).

Since then, the Corruption Prevention Council has been working closely with the Court of Accounting (Tribunal de Contas) and has taken on a leading role in the adoption of new risk management practices, issuing recommendations with a binding and compulsory application.

In order to comply with the guidelines laid down by the Recommendation of July 1, 2015 from the Council for the Prevention of Corruption, the Directorate General of Local Authorities prepared and approved (by order of the General Director, on June 28, 2016) the Management Risk Prevention Plan, including the Corruption and Related Offenses, called PPRGCIC, which identifies, in a very exhaustive manner, the different activities developed in an operational environment with potential risk. These should be considered within the internal control measures/mechanisms to be implemented in a municipality in order to prevent/avoid their occurrence.

In this context, the project described in the present chapter is based on the integrated Risk Management Model for the Portuguese Public Sector. The overall objective (see Table 2) is to design an integrated risk management model encompassing:

Table 2. Aims of the case study

To check the existence of mechanisms and instruments of Risk Management implemented in the municipality.	Quality Management System – already implemented in the municipality.
To develop a risk management model based on ISO 31000 – Risk Management – integrating it into the Management System based on ISO 9001.	To assess the operationalization of the Risk Management Plan designed for corruption and related infractions and ascertain its contribution to management.

The creation of a risk management model based on the compliance with legal and regulatory requirements is a useful model for municipal management and adaptable to the reality of any of the entities that belong to the Portuguese Public Sector. This study aims to contribute to the continuous improvement of the management system of the organization, placing it above the peers' level (Dias, 2017; Magalhães & Dias, 2017)[3].

Identification of the Organization: The Municipality of Maia

The Portuguese supreme law (Constituição da República Portuguesa), in Article 235, establishes that the democratic organization of the Portuguese State includes the existence of local authorities. Local authorities are collective persons of population and territory with representative bodies, elected by direct and secret universal suffrage, which aim at the pursuit of their own interests, common and specific to the populations (Almeida, 2000; Amaral, 2007).

The municipality of Maia is part of the group of local authorities, which includes the City Council (executive body), composed of the President, Vice-President and Councilors, and the Municipal Assembly (deliberative body), which includes the members representing the respective political parties and the Presidents of the county's parishes. The municipality of Maia is headquartered in the city of Maia,

located in the District of Porto, and is one of the 18 municipalities that make up the Metropolitan Area of Porto. Over the last thirty years, this municipality, with mostly rural characteristics, has become one of the most important poles of attraction in the north of the country. The municipality of Maia, since it has a population of more than 100,000 inhabitants, is part of the group of Large Municipalities.

Aware of the importance of meeting the collective and individual needs of the local public, the municipality of Maia has directed its strategy to reaching high levels of quality of life of the *maiatos* citizens. They highlight the guidelines for total certification for Quality and partial certification for the environment; the international projection and entrepreneurship and the bet on youth, sports, culture, environment, education and social support (e.g., implementation of sports promotion programs that distinguished Maia in 2014 with the title "European City of Sport"; the rehabilitation of housing through the Special Rehousing Program; the implementation in the environmental domain of the *Ecoponto* at Home Project; the creation of one of the largest industrial parks in the country and the certification of its services according to ISO 9001 and ISO 14001).

As to Risk Management, the municipality of Maia complies strictly with the recommendations of the Corruption Prevention Council. Yet, as the authors verified by conducting this case study, the process exists in the organization, but needs consolidation. A decisive factor for the consolidation of risk management practices is that the Municipal Executive Board should be aware of the importance of this process in the strategic management of the organization and cooperate with its effective implementation. However, the specificities of municipal management and the fact that their action results from the interface between the organization and the population implies a greater concern in identifying the risks that may jeopardize their tasks (Rocha, 1997). There are numerous risks to be taken into account, such as the fact that all public entities are subject to the primacy of legality and exist in the light of political cycles; do not have as their main objective the attainment of profit; are entities governed by public law, but also practice acts of private law (purchase, sale); their Top Management responds in some cases to electors and in others cases to ministerial tutelage (Carvalho, 2013). In addition, it should not be forgotten that there is also the risk of continuity, since the municipalities are mostly dependent on transfers from the State Budget (Moura, 2011). At the same time, the risk of corruption is inherent. According to a study on criminal sociology coordinated by Luís de Sousa in 2010, entitled "A corrupção participada em Portugal 2004-2008" (Participated corruption in Portugal 2004-2008), 345 of the 838 lawsuits analyzed during the 2004-2008 period were related to local government authorities and municipal enterprises (Cruz & Sousa, 2014).

Methodology

According to the proposed objectives, a case study of an exploratory and descriptive nature was developed.

Scientific research seeks to attain a reliable solution to a given problem through a logical procedure. Thus, it relies on an orderly and systematic logic of data collection and interpretation (Quivy & Campenhoudt, 2005).

Literature presents different perspectives regarding methodological options (what to do) and the design of information collection tools (how to do it), ascertaining them according to the objectives and the research questions and considering the available resources and even the position of the researcher him/herself (Monteiro, 2012).

In this sense, this case study was selected because one of the researchers has a professional link to this municipality. As mentioned, a case study of an exploratory and descriptive nature was developed, on a qualitative approach based on indirect observation, through the use of the documentary research technique and direct observation through the interview techniques.

The documentary research consisted of gathering and analyzing the documentary sources (documents generated within and across the organization) that consisted of the consideration of:

1. Risk Management practices existing in the organization;
2. Dynamics of the Organization Management System;

3. Implementation and monitoring of the Risk Management Plan.

As to the internal documentary sources consulted, they were the following: The Organization Macro-structure; the Management Report; the Management Policy; Review by Management; Management Guide; Internal Control Standard; Risk Management Plan and Implementation Report.
It was considered appropriate, for the objectives of this case study, to carry out semi-structured interviews, under previously studied specific objectives. The interviewees were chosen according to the organizational hierarchy (mainly quality managers, related staff and top management), their position in the municipality and the level of knowledge about the organization's Management System. The contents of the interview guide were displayed beforehand to the interviewees and consisted of the following main issues: (i) involvement of the workers in the anti-corruption plan; (ii) relation of the internal audit department to this anti-corruption plan; (iii) identification of the main risks considered; (iv) strategy to be used to face the risks; (v) report about the execution of the measures defined to prevent the risks and respective KPI. Content analysis and documentary analysis were the methods used for the analysis of the collected information, so as to allow for data triangulation. Thus, a content analysis grid was used, in which the interviewees' perceptions were characterized in an individualized way. Each issue asked to the interviewees corresponded to each study objective. After performing this content analysis, data was compared to the previously referenced document sources.

At this moment it is important to put forward the formulated assertions that rule this project (Table 3):

Table 3. Assertions

The existence and contribution of Risk Management practices for the municipal management.	The contribution of the Internal Audit for the management of the risks of the organization.
Integration of ISO 31000 – Risk Management – in the Quality Management Systems.	The effectiveness of the Risk Management Plan as an instrument to support the management of the municipality.

Risk Management

The Integrated Risk Management Model for the Portuguese Public Sector is based on the consideration of ISO 31000 – Risk Management – Principles and Guidelines for the management practices of the organization. The municipality of Maia has already been quality certified by ISO 9001 – Quality Management Systems (updated 2015). This last version provides a new approach for a Risk-Based Thinking, which converges and announces a facilitator for the integration of the ISO 31000 within organization management practices. Thus, the risk model to be constructed has the following objectives (see Table 4):

Table 4. Objectives of the Risk Model

To be oriented for the implementation of the process of Risk Management.	To integrate the risk culture into the organization's culture.
To establish a structured and systematic risk management.	To contribute to improving the organization's image and reputation.

Since the municipality of Maia has clearly defined guidelines and strategic objectives, it is important to try to identify the risks that may affect their fulfilment. Therefore, a Risk Management Policy must be formally created. This will contribute to the consolidation of the risk management practices already instituted and, consequently, to the improvement of the Organization Management System. In this context, the elaboration of a Manual of Risk Management became a reality, having a main role in the implementation and maintenance of the process. It will allow to standardize concepts, to institute in the

organization the adequate practices for managing the risks and, consequently, to keep a systematic follow-up. It also considers all stakeholders in the process and contributes to the transparency of the organization's risk management.
In short, the content of the Manual is shown in Table 5.

Table 5. Risk Management Manual

MANUAL
Applicable legal and regulatory imperatives and risk management procedures.
Concept of risk, description of level of risks and synthesis of the control and reporting systems that integrate and support the process.
Responsible people and their interaction in the process.
Procedures to be followed in the evaluation of the risks and periodicity of execution.
Criteria considered in the implementation of measures to mitigate risks and responsibilities in this area.
Graduation methodologies and quantification of risks (inherent and residual risk).
Methods of monitoring, responsible persons and periodicity. Measures to be implemented when risk limits are exceeded.
Model of risk report to be prepared.
Parameters to follow in the evaluation of the risk management process.

So, the Risk Management scope of analysis within all the processes of the municipality will include different paths:

- Identification of the risks taking into account the strategic objectives;
- Detailed characterization of the organization: vision, mission and strategic objectives; articulation of the Internal Audit and Risk Management process; organizational macro-structure and data on human and financial resources;
- Presentation of the methodology underlying the plan and the report;
- Introduction of data analysis concerning the execution of the plan (partial and global results of the management of the organizational risks);
- Insertion of a chapter for final considerations (inquiries regarding recommendations issued by the Corruption Prevention Council or changes to the International Organization for Standardization referential);
- Adequacy of the schedules and annexes attached to the plan and report (identification of processes and objectives, articulation between strategic guidelines and objectives of each process, identification of risk factors, expected dates for carrying out risk management actions and evaluation of effectiveness).

In addition to the preparation of this Manual, the Risk Execution Plan was also developed. To attain it, some complementary supports were carried out:

i. a Checklist for the Independent Evaluation of the Risk Management Process;
ii. a Risk Management Implementation Schedule;
iii. a Communication Report.

The Manual is closely linked to the Risk Management Plan and to the Implementation Report. It establishes the methodology to be followed by the management of the organization as to the risks and, in this sense, the Plan and the Report are the tools that will shape this methodology.

As can be seen from the contents of ISO 31000 previously described in this chapter (Figure 2), this standard is fully used in this case. From establishing the context within the municipality until the moment of assessing the risk and treating it, all the phases were considered and the guidelines and procedures were implemented. For the integration of these documents in the organization's Management System (that is depending on ISO 9001) it was suggested to implement the following actions:
ACTION 1: Adapt all the processes to the new approach of Risk Based Thinking, including strategic and change management. This approach is, in fact, one of the most important changes in ISO 9001. Being present in practically all the requirements of this conceptual structure, it alerts to the necessity of establishing a cause-effect thought. So, municipal management should be developed taking into account the risks, their causes and their impact (both positive and negative) on all projects, programs and organizational plans.
ACTION 2: Quarterly monitoring of actions defined for the treatment of risks. The organization has an internal event registration system. Under a logic of continuous improvement and embedded in this recording scheme, all the actions to be implemented, responsible parties, execution dates of the actions undertaken and the evaluation of their effectiveness are identified. This internal event recording system should include risk management strategies in order to direct the organization towards possible changes to the risk profile and to the definition of measures to be implemented when the risk limits are exceeded.
ACTION 3: Integration in the annual review of the organizational performance information concerning the risk management activity and its analysis by the top management. The municipality maintains an annual cycle of revision of the organization system. Monitoring the evolution of the risk management strategies' implementation may be a valid indicator of process performance.

Internal Audit process

The Risk Management process should be kept along with the approaches established in the organization (under PDCA Plan-Do-Check-Act Cycle, Process Approach and Risk Based Thinking) and according to the organization's strategy. For the implementation of this model, the municipality will consider an analysis of the risks related to the already established processes, and whenever there are expected changes the provision of services should be used.
On the other hand, all steps concerning planning the actions needed to treat the risks and considering the usual factors and their impact will take place. This task will take into account not only the rate of risk implementation but also the evaluation of the actions undertaken about the risks, which shall be disclosed to all stakeholders, once they are relevant for the Quality Management System. As concerns the role of Internal Audit within the process, and taking into account that the new paradigm is based on a vision focused on management risks, the Internal Audit is closely related to Risk Management and to Internal Control. When internal auditors assess Internal Control, they question whether the controls are appropriate to the risks identified by the organization. Controls exist because there are risks, and the risks exist because the organization has goals. As to the Internal Audit, the municipality of Maia considers that this is an important tool for top management to be involved.
Nonetheless, reflection on two aspects was considered quite beneficial:

- The first concerns the formal consideration of "risk" in the planning and implementation of Internal Audits. Since the audit work is based on sampling, and it is well known that auditors cannot focus on all areas of the organizations, some criteria and some faithful samples must be previously defined. If the focus lays upon the mostly risky areas, it is essential that planning continues to have a number of reflections about the critical processes, top management, internal service requests, macrostructure changes, legal, regulatory or regulatory changes and available resources.

- The second is the periodic performance of an independent evaluation of the Risk Management process. This evaluation should be developed according to the organization's specific characteristics, and this could happen within the scope of analysis of internal audits and/or verifications carried out by the Management System. Top management should formally have this

commitment and disseminate this organizational practice internally. Assuming it as a credibility factor, the independent evaluation about risk management process of the organization should have as main objective to provide security on the effectiveness of Risk Management activities in the municipality.

Thus, these guidelines are most important to frame this issue, as shown in Figure 7.

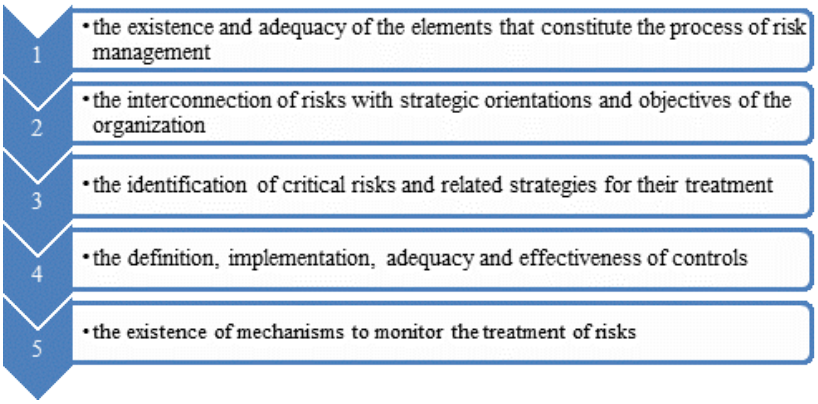
1
• the existence and adequacy of the elements that constitute the process of risk management
2
• the interconnection of risks with strategic orientations and objectives of the organization
3
• the identification of critical risks and related strategies for their treatment
4
• the definition, implementation, adequacy and effectiveness of controls
5
• the existence of mechanisms to monitor the treatment of risks

Figure 7. Guidelines for the evaluation of Risk Management

At this moment, the project is completely designed and some final comments about it may be put forward.

CONCLUSION

From this short travel around standards it can be observed that they are quite important in the management of any organization. They represent some accrued value and account for a lot to the top management when the company has a good market-share to defend, relevant business numbers, significant assets and a large number of workers. This study started considering the importance of using IFRS and ISA as to the financial statements of any company. Additionally, some other ISO standards were considered. As to the internal environment of any organization, a particular attention was driven to Risk Management placed under two versions: ERM and ISO 31000. A case study about the implementation of ISO 31000 was carried out in the Portuguese municipality of Maia, from which the following main ideas may be drawn:

1. Through the achievement of this project, it may be concluded that the municipality of Maia considers Risk Management as an important management tool. Top management is quite aware of the importance of Risk Management as a strategic and cooperative tool and shows its commitment to what is legally required by the Corruption and Prevention Council.
2. The improvement opportunities suggested by the Integrated Risk Management Model for the Portuguese Public Sector are numerous. The positive view of risk in the organization's culture may be highlighted. Although it is associated with future and uncertainty, it can be exploited and managed in the sense of getting the most of it. It seems that, if well seized, risk may also become an opportunity.
3. In addition to the organization's context, other internal information became crucial, such as monitoring stakeholders' expectations and objectives, thus enabling satisfaction assessment results, audit results, nonconformities and opportunities for improvement.
4. It is also important to emphasize the implementation of the Residual Risk Graduation practice: the quantification and graduation of the remaining risk, the one that is left after the implementation of the mitigation measures, allows to assess the levels of the exceeding risk and, consequently, a decision making about it.

5. Internal Audit considers risk in its planning, which is also important, since it directs the activity towards the critical areas.
6. Another important issue is that, by defining KPI (consequent to the Quality Management System), the organization can regularly monitor the achievement of objectives and, consequently, do a direct planning. Furthermore, the planning, training and awareness sessions will contribute to the promotion of risk culture in the organization. The redesign and integration of the Risk Management Plan and the Implementation of the Report into the Organization Management System is crucial to get evidence about process compliance.
7. Finally, the organization can report about the risk decisions in the Management Report and in the Management Review Minutes. The processes will benefit from the integration and get a synergy from the legal and regulatory requirements.

The consolidation of the Risk Management process established in the Municipality of Maia proves to be an added value for the organization's management. Managing the risk can be named as a competitive advantage (Magalhães & Dias, 2017; Dias, 2017). This study revealed that the essential condition for its consolidation is something that was found in this particular organization: a favorable corporate culture, which is characterized by a clear involvement of top management across the whole process. This is a very positive stance, inasmuch that the options and decisions about issues related to Risk Management in the Portuguese Public Sector may, very frequently, involve political options that stand somehow beyond the scope of the sole organization. As to this particular case study, it may be stated that its study and development is applicable either to the private or to the public sector. Nowadays, managing the risk of organizations is critical in order to present a different and assured positioning in the market.
From the whole study, it may be concluded that all standards from the ISO family (such as the 9001, 18001 and 14001 standards) considered are important for the process of any kind of organization. Finally, and as a tone of the top ISO 26000 was mentioned, meaning that only some companies can address it because CSR is a top positioning of companies in the market. This title CSR must show that organizations add to and are relevant for the community, presenting a different market positioning that benefits people, the society and the environment.
As a limitation of this study, the authors assume the absence of the calculation of the added value of the ISO 31000 implementation (it is still too early to measure it). Furthermore, the consideration of only one municipality is somehow a short sample. As future research paths, this study could be replicated in other municipalities or in some entrepreneurial sectors from industry or services and it would be quite interesting to record the different outcomes.

REFERENCES

Almeida, J. R. (2000). *Contabilidade de custos para autarquias locais* [Cost accounting for local authorities]. Porto: Vida Económica – Editorial.
Amaral, D. F. (2007). *Curso de Direito Administrativo* [Course of Administrative Law] (3rd ed.). Coimbra: Almedina.
Antonelli, C. (1999). *Localized technological change and the evolution of standards as economic institutions.* Oxford: Oxford University Press.
Azevedo, S. R. C. (2014). *Auditoria aos municípios estudo de caso – uma aplicação à Área Metropolitana do Porto* [*Audit to municipalities case study – an application to the Metropolitan Area of Porto*]. Master's work project. Porto: Instituto Superior de Contabilidade e Administração do Porto do Politécnico do Porto.
Basir, S. A., Davies, J., Douglas, J., & Douglas, A. (2017). The influence of academic culture on quality management system ISO 9001 maintenance within Malaysian universities. *Journal of Higher Education Policy and Management, 39*(3), 320-340.
Blanco, H., & Bustos, B. (2004). *Normalización y comercio sustentable en Sudamérica* [Standardization and sustainable trade in South America]. Santiago de Chile: RIDES.

Blind, K. (2004). *The economics of standards: Theory, evidence, policy*. Massachusetts: Edward Elgar Publishing.
Boolaky, P. K., & Soobaroyen, T. (2017). Adoption of International Standards on Auditing (ISA): Do institutional factors matter? *International Journal of Auditing, 1*(21), 59-81.
Boynton, W. C., Johnson, R. N., & Kell, W. G. (2003). *Modern auditing* (7th ed.). New York: John Willey & Sons Inc.
Brunsson, N., & Jacobsson, B. (2000). The contemporary expansion of standardization. In N. Brunsson & B. Jacobsson (Eds.), *A world of standards* (pp. 1-17). Oxford: Oxford University Press.
Carvalho, R. (2013). *Auditoria da Administração Pública – Factores de risco mais comuns na Administração Pública* [Audit of Public Administration – Most common risk factors in Public Administration]. Visual Projection, Master's in Auditing, Edition 2013-2015. Porto: Instituto Superior de Contabilidade e Administração do Porto do Politécnico do Porto.
Cheng, C., & Flasher, R. (2018). Two short case studies in staff auditor and student ethical decision making. *Issues in Accounting Education, 33*(1), 45-52**.**
COSO – Committee of Sponsoring Organizations of the Treadway Commission (2017). *Enterprise risk management integrating with strategy and performance*. Available at https://www.coso.org/Documents/2017-COSO-ERM-Integrating-with-Strategy-and-Performance-Executive-Summary.pdf.
Cruz, N. F., & Sousa, L. (2014). *Local integrity system assessment Portugal*. Lisboa: TIAC.
De Sousa, L. (2010). *A corrupção participada em Portugal 2004-2008. Resultados globais de uma pesquisa em curso*. Lisboa: PGR/DCIAP and CIES-ISCTE.
Deming, W. (1989). *Calidad, productividad y competitividad. La salida de la crisis* [Quality, productivity and competitiveness. The way out of the crisis]. Madrid: Díaz de Santos.
Dias, A. (2009). Quality management systems for global business as a competitive advantage. *Journal Many faces of Innovation – from literature synthesis to empirical studies*, University of Laurea, 78-103. Hyvinkaa, Finland.
Dias, A. (2010). Quality management systems for globally competing. *Revista de Gestão e Sustentabilidade – Portuguese Review of Management and Sustainability, 1*, 79-96. IPL Centro de Investigacão em Gestão.
Dias, A. (2013). *Diffusion and efficiency of ISO standards within the European Union: A qualitative and quantitative analysis in Portuguese organizations*. PhD Thesis. Proquest LLC UMI 3570823 (USA).
Dias, A. (2014). *Diffusion and efficiency of ISO 9000 standards in EU*. Germany: Lambert Academic Publishers. ISBN 978-3-659-20283-4.
Dias, A. (2017). A more effective audit after COSO ERM 2017 or after ISO 31000:2009? *Perspectiva Empresarial, 4*(2), 73-82. Available at http://dx.doi.org/10.16967/rpe.v4n2a7.
Dias, A., & Lima, L. (2010). Quality systems for global business as a competitive advantage. In T. Riihelä & M. Mattila (Eds.), *Many faces of Innovation – from literature synthesis to empirical studies* (pp. 78-103). Hyvinkaa, Finland: Laurea University of Applied Sciences.
Drucker, P. (1986). *Managing for results*. New York: Harper & Row.
Félix, S. A. L. (2013). *Uma análise sistémica da auditoria interna nos municípios em Portugal* [A systemic analysis of internal auditing in municipalities in Portugal]. Master's work project. Coimbra: Instituto Superior de Contabilidade e Administração de Coimbra do Politécnico de Coimbra.
Giovannucci, D., & Ponte, S. (2005). Standards as a new form of social contract? Sustainability initiatives in the coffee industry. *Food Policy, 30*, 284-301.
Gupta, A., Briscoe, F., & Hambrick, D. C. (2017). Red, blue, and purple firms: Organizational political ideology and corporate social responsibility. *Strategic Management Journal, 38*(5), 1018-1040.
Hans, C., Edward, L., Martin, W., & Cheng, Z. (2015) Incentives or standards: What determines accounting quality changes around IFRS adoption? *Journal of European Accounting Review, 24*(01), 31-61.
Henson, S., & Loader, R. (2001). Barriers to agricultural exports from developing countries: The role of sanitary and phytosanitary requirements. *World Development, 29*(1), 85-102.

Heras, I. (Coord.) (2006). *ISO 9000, ISO 14001 y otros estándares de gestión: Pasado, presente y futuro* [ISO 9000, ISO 14001 and other management standards: Past, present and future]. Madrid: Editorial Civitas.
Heras, I., Dick, G., & Casadesús, M. (2002). ISO 9000 registration's impact on sales and profitability. A longitudinal analysis of performance before and after accreditation. *International Journal of Quality & Reliability Management, 19*(6), 774-791.
Hyvönen, J. (2007). Strategy, performance, measurement techniques and information technology of the firm and their links to organizational performance. *Management Accounting Research, 18*(3), 343-366.
Kaplan, R., & Norton, D. (1992). The balanced scorecard – Measures that drive performance. *Harvard Business Review, 70*(1), 71-79.
Lourenço, I. M. E. C., & Castelo Branco, M. E. M. A. D. (2015). Principais consequências da adoção das IFRS: Análise da literatura existente e sugestões para investigação futura [Main consequences of adopting IFRS: Analysis of existing literature and suggestions for future research]. *Revista de Contabilidade e Finanças, 26*(68), 126-139.
Magalhães, M., & Dias, A. (2017). *Modelo integrado de gestão do risco para o sector público português. Estudo de caso – O município da Maia* [Integrated risk management model for the Portuguese public sector. Case study – The municipality of Maia]. Master's work project. Porto: Instituto Superior de Contabilidade e Administração do Politécnico do Porto.
Mihret, D. G., & Yismaw, A. W. (2007). Internal audit effectiveness: An Ethiopian public sector case study. *Managerial Auditing Journal, 22*(5), 470-484.
Mintzberg, H. (1987). The strategy concept II: Another look at why organizations need strategies. *California Management Review, 30*(1), 25-32.
Monteiro, S. C. (2012). *Percursos de excelência académica no ensino superior: Estudo em alunos de engenharia em Portugal* [Courses of academic excellence in higher education: Study in engineering students in Portugal]. PhD Thesis. Braga: Escola de Psicologia da Universidade do Minho.
Moura, N. J. (2011). Procedimentos de auditoria a adoptar na revisão legal das contas dos municípios: enquadramento teórico e aplicação prática. *Revista Revisores & Auditores, Ordem dos Revisores Oficiais de Contas, 52*, 22-34, janeiro/março.
Mukhlisin, M., & Antonio, M. S. (2018). Meta-analysis on direction of accounting standards for islamic financial institutions: Case studies in United Kingdom and Indonesia. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah (Journal of Islamic Economics), 10*(1), 231-254.
Murmura, F., Liberatore, L., Bravi, L., & Casolani, N. (2018). Evaluation of Italian companies' perception about ISO 14001 and Eco Management and Audit Scheme III: Motivations, benefits and barriers. *Journal of Cleaner Production, 174*, 691-700.
Nogueira, S. P. S., & Jorge, S. M. F. (2017). The perceived usefulness of financial information for decision making in Portuguese municipalities: The importance of internal control. *Journal of Applied Accounting Research, 18*(1), 116-136.
Oakland, J., & Tanner, S. (2007). A new framework for managing change: Total Quality Management & business excellence. *Journal of Quality & Reliability Management, 18*(1,2), 1-19.
Oliveira, U. R., Marins, F. A. S., Rocha, H. M., & Salomon, V. A. P. (2017). The ISO 31000 standard in supply chain risk management. *Journal of Cleaner Production, 151*, 616-633.
Ortiz, J., Benito, J., & Galende, J. (2006). Total quality management as a forerunner of business innovation capability. *Technovation, 26*(10), 1170-1185.
Quivy, R., & Campenhout, L. V. (2005). *Manual de investigação em ciências sociais* [Manual of research in social sciences] (4th ed.). Lisboa: Gradiva.
Ribeiro, V. P., Aibar-Guzmán, C., Aibar-Guzman, B., & Monteiro, S. M. (2016) Determinants of environmental accounting and reporting practices in Portuguese local entities. *Corporate Communications, 21*(3), 352-370.
Rocha, J. A. O. (1997). Esboço dum modelo de análise dos municípios. *Cadernos de Estudos Municipais, 8*, 1-25, dezembro.

Schein, E. (1999). *The corporate culture survival guide. Sense and nonsense about culture change* (1st ed.). San Francisco: Jossey-Bass.
Vinnari, E., & Skærbæk, P. (2014). The uncertainties of risk management. *Accounting, Auditing & Accountability Journal, 27*(3), 489-526.
Zahirul, H. (2003). Total Quality Management and the balanced scorecard approach: A critical analysis of their potential relationships and directions for research. *Critical Perspectives on Accounting, 14*(5), 553-566.

ENDNOTES

[1] Porto District: Amarante; Baião; Felgueiras; Gondomar; Lousada; Maia; Marco de Canaveses; Matosinhos: Paços Ferreira; Paredes; Penafiel; Porto; Póvoa de Varzim; Santo Tirso; Trofa; Valongo; Vila do Conde; Vila Nova de Gaia.

[2] Source: Direção Geral das Autarquias Locais – Data from August 13, 2018.

[3] A deep and recognized feeling for the help, knowledge transmission and team spirit granted by Rita Daniela Oliveira de Sousa, who is part of the Top Management of this Municipality, must be put forward.